

RESPONSE UNDER 37 C.F.R. § 1.116  
U.S. Application No. 10/022,888  
Attorney Docket No. Q66962

**REMARKS**

**I. Introduction**

Claims 1-10 are pending in the application. Claims 3-6 have been withdrawn from consideration as belonging to a non-elected species. Claims 1-2 and 7-10 have been examined and are rejected. Specifically, the Examiner maintains the rejection of claims 1 and 2 under 35 U.S.C. § 102(b) as allegedly being anticipated by Applicant's Prior Art Disclosure (hereinafter the "PAD"). Furthermore, the Examiner rejects recently added claims 7-10 under 35 U.S.C. § 103(a) as allegedly being unpatentable over the PAD in view of Mashino et al., U.S. Patent No. 4,618,811 (hereinafter "Mashino").

Applicant traverses the rejections of claims 1-2 and 7-10 as follows.

**II. Claim Rejections -- 35 U.S.C. § 102(b)**

Claims 1 and 2 stand rejected under § 102(b) as allegedly being anticipated by the PAD.

Claim 1 recites, *inter alia*, "a control circuit having an on-off control switching section for controlling the turning on and off of a field current of said vehicle generator . . .". According to the Examiner, the PAD discloses a control unit for a vehicle generator 2 and a control circuit having an on-off switching section 1j for controlling the field current of the generator (Office Action: page 2; *citing* Applicant's specification: page 2, line 23 to page 3, line 3).

Claim 1 also requires "a power generation stop terminal for interrupting said on-off control switching section". The Examiner alleges that the PAD discloses a power generating stop circuit 6 having an off detection circuit 6a and a power generation stop terminal 6c for

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interrupting the on-off control switching section (Office Action: page 2; *citing* Applicant's specification: page 1, lines 15-21; page 2, lines 14-20; and page 3, lines 3-11).

Applicant respectfully disagrees. As noted above, the Examiner's position is that the PAD discloses the on-off switching section recited in claim 1 by describing a transistor 1j (with a Darlington connection) for turning on and off the field current (*see, e.g.*, Applicant's specification: page 2, lines 8-9). Furthermore, according to the Examiner, the PAD discloses the power generation stop terminal recited in claim 1 by describing a power generation stop relay 6c, which is energized to close its contacts thereby to ground the output terminal L when the transistor 6b is made conductive (*see, e.g.*, Applicant's specification: page 2, lines 14-20).

The power generation stop relay 6c of the PAD does not correspond to the recited power generation stop terminal of claim 1. For example, the power generation stop relay 6c of the PAD does not interrupt the on-off control switching section (*e.g.*, transistor 1j). Instead, according to the PAD, when the key switch 4 is turned off, the power generation stop relay 6c is energized to ground the output terminal L of the auxiliary rectifier 2d, thereby to interrupt field current (Applicant's specification: page 3, lines 4-9 and 14-17).

The grounding of output terminal L does not, for example, ground the control terminal of transistor 1j. Indeed, because of the problems with the prior art approach, the control unit of claim 1 does not involve the interruption of a large current when the key switch 4 of the vehicle is turned off (*see, e.g.*, Applicant's specification: page 8, lines 7-14).

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Thus, the Examiner's indication that Fig. 5 of the PAD illustrates a Darlington transistor 1j for turning on and off the field current is irrelevant given that the PAD fails to disclose or suggest "a power generation stop terminal for interrupting said on-off control switching section", as recited in claim 1. Furthermore, neither the voltage sensing terminal S nor the output terminal L correspond to power generation stop terminal of claim 1 because neither of these terminals interrupt the on-off control switching section. To the contrary, voltage sensing terminal S is used by the control circuit 1 to detect the voltage of the battery 5 (*see* Applicant's specification: page 2, lines 23-24). Output terminal L (of the auxiliary rectifier 204) is used to interrupt a field current of the field coil 2a (*see* Applicant's specification: page 3, lines 8-9).

Further still, the Examiner's allegation that the power generation stop terminal is not disclosed structurally in the claims is incorrect. Claim 1 clearly recites "a power generation stop terminal for interrupting said on-off control switching section". For example and not by way of limitation, Applicant's Fig. 1 clearly illustrates such a stop terminal K that can interrupt an on-off control switching section, *e.g.*, on-off control transistor 1j (*see also* Applicant's specification: page 7, lines 20-23: grounding stop terminal K interrupts transistor 1j to turn off a field current supplied to the field coil 2a).

For at least the above exemplary reasons, claim 1 is not anticipated by the PAD. Consequently, claim 2 is not anticipated by the PAD, at least by virtue of its dependency.

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**III. Claim Rejections -- 35 U.S.C. § 103(a)**

Claims 7-10 stand rejected under § 103(a) as allegedly being unpatentable over the PAD in view of Mashino. Mashino fails to make up for the exemplary deficiencies of the PAD set forth above for claim 1.

For example, Mashino fails to teach or suggest “a power generation stop terminal for interrupting said on-off control switching section”. Neither terminal F nor terminal L, which the Examiner characterizes as being related to the stopping of power generation (*see* Office Action: page 4), correspond to the recited power generation stop terminal .

To the contrary, terminal F connects a Darlington-connection power transistor 13 and a field coil 2 (Mashino: col. 2, lines 56-59). In this manner, a voltage regulator 6 including the Darlington-connection power transistor 13 can control the current flowing through the field winding 2 and regulate the output voltage of the generator (Mashino: col. 2, lines 41-44). The terminal F does not interrupt the Darlington-connection power transistor 13.

Terminal L is connected to terminal F by a flywheel diode 14 such that when the power transistor 13 is turned off, the flywheel diode 14 circulates the current flowing through the field winding 2 and prevents the occurrence of a high voltage in the field winding 2 (Mashino: col. 2, lines 59-64). The terminal L itself does not interrupt the power transistor 13.

Therefore, claims 7-10 are patentable over a reasonable combination, if any, of the PAD and Mashino, at least by virtue of their dependency.

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#### IV. Drawings

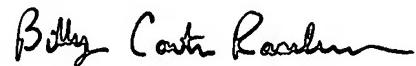
As noted in the Office Action, the drawings filed on November 21, 2003 have been accepted by the Examiner.

#### V. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at attorney the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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